



KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI
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Jalan T. Nyak Arief, Kampus UNSYIAH, Darussalam – Banda Aceh, Tlp. (0651) 8012380, Kode Pos 23111
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ELECTRONIC THESIS AND DISSERTATION UNSYIAH

TITLE

UJI ANTIBAKTERI EKSTRAK ETANOL KOMBINASI DAUN KETEPENG CINA (*SENNA ALATA L*) DAN DAUN KAPUK RANDU (*CEIBA PENTANDRA GAERTN.*) TERHADAP *STAPHYLOCOCCUS AUREUS* ATCC 25923

ABSTRACT

ABSTRAK

Masyarakat Desa Tuwi Kareung, Kabupaten Aceh Jaya telah mengkombinasikan daun ketepeng cina (*Senna alata L.*) dan daun kapuk randu (*Ceiba pentandra Gaertn.*) dengan jumlah yang sama untuk mengobati infeksi kulit. Tujuan penelitian ini untuk mengetahui kombinasi ekstrak kedua tanaman dalam menghambat pertumbuhan *S. aureus*. Penelitian ini menguji antibakteri ekstrak etanol kombinasi daun ketepeng cina dan daun kapuk randu terhadap bakteri *Staphylococcus aureus* ATCC 25923 dengan perbandingan 1:1. Karakterisasi simplisia dan ekstrak kedua tanaman meliputi penetapan kadar abu, penetapan kadar air, kadar sari larut air, dan kadar sari larut etanol. Skrining fitokimia dilakukan terhadap ekstrak etanol dari kedua tanaman. Adapun uji antibakteri ekstrak etanol kombinasi daun kapuk randu dan ketepeng cina dilakukan dengan metode difusi kertas cakram pada konsentrasi 10; 20; 30; dan 40%. Hasil skrining fitokimia terhadap ekstrak etanol daun kapuk randu menunjukkan adanya senyawa saponin, alkaloid, tanin, dan steroid. Ekstrak etanol daun ketepeng cina mengandung senyawa saponin, tanin, dan alkaloid. Hasil karakterisasi simplisia daun ketepeng cina dan daun kapuk randu adalah kadar air 5,33% dan 6,83%, kadar abu 3,17% dan 4,34%, kadar sari larut air 18,4% dan 17,5%, serta kadar sari larut etanol 73,8% dan 78,8%. Ekstrak etanol daun ketepeng cina menunjukkan kadar air 21,5%, kadar abu 3,36%, kadar sari larut air 29,06%, dan kadar sari larut etanol 58,13%. Ekstrak etanol daun kapuk randu menunjukkan kadar air 12,93%, kadar abu 2,78%, kadar sari larut air 27,46, dan kadar sari larut etanol 79,26%. Pengujian antibakteri menunjukkan diameter zona hambat pada konsentrasi 10; 20; 30; dan 40% masing-masing sebesar 11,7; 12,37; 14,28; dan 15,39 mm. Diameter zona hambat terbesar dihasilkan oleh konsentrasi ekstrak 40%.

Kata kunci : *Ceiba pentandra Gaertn.*, *Senna alata L.*, *Staphylococcus aureus*,
dan Difusi kertas cakram.

ABSTRACT

Tuwi Kareung Villagers, Aceh Jaya district have combination ketepeng cina leaves (*Senna alata L.*) and kapuk randu leaves (*Ceiba pentandra Gaertn.*) with the same amount to treat skin infections. The research purposed was knew combination both of plant extract to inhibit *S. aureus* growth. This study was examined antibacterial activity of ethanol extract combination of kapuk randu leaves and ketepeng cina leaves on *Staphylococcus aureus* ATCC 25923 with comparison 1:1. Simplicia and extract both of plant characterization included determination of water content, determination of water and ethanol soluble extracted content, and total ash content. Phytochemical screening test was done on both of plant ethanol extract. Antibacterial activity test ethanol extract



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combination kapuk randu leaves and ketepeng cina was done with disk diffusion method on concentration 10; 20; 30; and 40%. The presence of steroid, saponin, alkaloid, and tanin had shown on the result of phytochemical screening on ethanol extract of kapuk randu leaves. Ethanol extract of ketepeng cina leaves had shown the presence of alkaloid, saponin, and tannin. The result of simplicia ketepeng cina leaves and kapuk randu leaves characterization had shown that the water content are 5,33% and 6,83%, total ash content are 3,17% and 4,34%, water soluble simplicia content are 18,4% and 17,5%, and ethanol soluble extract content are 73,8% and 78,8%. Ethanol extract of ketepeng cina leaves had shown that water content is 21,5%, water and ethanol soluble extracted content 29,06% and 58,13% respectively, and total ash content was 3,36%. Ethanol extract of kapuk randu leaves had shown that water content is 12,93%, water and ethanol soluble extracted content 27,46% and 79,26% respectively, and total ash content was 2,78%. Antibacterial activity test had shown that diameter of inhibition zone on varian concentration 10; 20; 30; and 40% respectively 11,7; 12,37; 14,28; and 15,39 mm. Diameter of the largest inhibit zone had shown on concentration 40%.

Keywords : Ceiba pentandra Gaertn., Senna alata L., Staphylococcus aureus,
and disk diffusion method.